

**Notice of Allowability**

Application No.

09/609,699

Examiner

NABIL Z. HINDI

Applicant(s)

MIYAGAWA ET AL.

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the remand dated 09/16/03, the amendment dated 12/28/04 and the declaration filed 10/07/05.
2. ☒ The allowed claim(s) is/are 87 and 89-105 renumbered as claims 25-42.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 07/740629.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
- ☒ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other \_\_\_\_\_

NABIL Z. HINDI

PRIMARY EXAMINER

GROUP 2500

2066

Art Unit: 2655

I response to the remand to the examiner from the Board of Patent Appeals and Interference (BPAI) in view of its precedential opinion, Ex Parte Eggert et al, Appeal No. 2001-0790 (Bd. Pat. App. & Inter. May 29, 2003). The following action is taken:

Claims 87 and 89-105 are allowed.

The following is an examiner's statement of reasons for allowance:

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

A recapture rejection would not be appropriate in the present reissue application for claims 87, 89, 96, 98 and 100.

#### Background:

Reissue application 09/609,699 of the patent to Miyagawa 5,235,581 (application 07/740,629), has two independent claims, namely 96 and 98 for which the following analysis indicates the reissue claims to be impermissibly broadened, by removing limitations that were relied upon during prosecution to define over the applied prior art.

Broadly speaking, the patent discloses as system of writing data on optical discs using a laser system having multiple optical head writers. Because different discs can have optical layers of varying thickness, it is essential for the system to be able to recognize the thickness of the optical layer of the disc in use, and to select the optimal optical head writer for the disc at hand. Because the system was specifically designed with multiple optical heads for selective writing on different kind of discs having varying optical layers, the number of the optical heads N must be equal to or greater than 2. Consequently, the sum of the similar optical components N of the system is identical with the number of the optical heads.

In the prosecution of the original application (07/740,629), the Examiner rejected independent claim 1 and as being anticipated by Nishiuchi 5097464, that disclosed an invention similar to the claimed invention, albeit with only one head. The main difference between the claimed invention and the prior art is that instead of having multiple optical heads, the prior art had a transparent plate (element 9) for corrections of the optical path length through the optical layers of different discs. The rejection listed all the limitations in the independent claim 1, and read them on elements in the Nishiuchi patent. In the reply, applicants canceled claim 1, and rewrote dependent claims 2, 4, 5, 7, 8, 9 in independent form to incorporate the limitations of claim 1. Claim 6 and its dependent claims 16 and 26 were canceled. Arguments were made regarding (the cited

Art Unit: 2655

claims numbers refer to patent claims numbers NOT the original application claims numbers): a) the control means selecting one of a plurality of light emitting systems for the minimization of the substrate-thickness aberration (claim 7); b) the control means generating a signal to the selecting means according to the discrimination signal (claims 10, 13 (it is believed that the reference in the response to application claims 6 and 7 is an error for application claim 5 (patent claim 10) and application claim 7 (patent claim 13)); and c) the definition of N converging grating couplers (claim 19). Although the response argued that the amendment was to overcome a blank rejection of all the claims under 35 USC 112, it rather addresses the limitations that that in combination with the other limitations of the independent claims defined the claims over the applied prior art. It is also to be noted that the Examiner identified the allowable claims because they defined over the prior art, and applicants did not refute the Examiner's conclusion. Note that the above limitations were the ONLY limitations that were argued in applicant's response prior to the allowance, and those limitations were made part of all the application claims by way of the amendment that deleted all claims not having them.

**A recapture rejection would not be appropriate in the present reissue application for claims 96 and 98 in view of the following analysis.**

**Analysis and Suggested Response to the Remand:**

In the present instance, applicant argued the novelty of the following limitations:

Element X: control means selecting objective lens minimizing the aberration caused by the disc substrate.

Element Y: means for discriminating the thickness substrate (see page 9 of paper no. 6, filed 11/17/1992).

Element Z: the number of the optical heads, N1 equal or greater than 2, and the identical number N of their respective similar components. This limitation is critical in defining over the prior art, and although specifically argued by applicant (in the original application) only with regard to application claim 9 and patent claim 19, it is inherently implied in applicant's response through the use of plural language for limitations such as "plurality of light emitting means", and "converging optical systems", i.e., the optical heads (see *loc. cit.*).

To overcome the prior art rejection, applicant rewrote the claims (which were ultimately allowed) to add in combination limitations X, Y, and Z, to the other limitations of the claims, i.e., limitations X, Y, and Z were made part of all the claims.

The above limitations have been modified via the reissue application in reissue claims 96 and 98; for example, claim 96 as follows:

**Claim 96:**

An optical recording/reproducing apparatus for recording ... an information signal onto ... any one of N types (where  $N \geq 2$ ) of optical discs having first layers of different thicknesses .... comprising: ... a converging optical system including a first converging

Art Unit: 2655

means comprising a first numerical aperture and a second converging means comprising a second numerical aperture, a light flux on said second layer of ones of said N types of optical discs .... wherein said converging means converges said light flux as a smaller spot diameter D by employing a larger one of said M effective numerical apertures, with respect to one of said optical discs having a thinner one of said first layers, photo detecting means for detecting a reflected light... as an electric signal... said apparatus is discriminated by said electrical signal.

Although applicant has completely rephrased the limitations of the claimed invention, it is clear from the new claim language that the claimed apparatus has multiple converging components in form of "different effective numerical apertures" "performing aberration correction" by the inherent feature of using a first numerical aperture for disk having a first thickness and a second numerical aperture for a disk having a second thickness, and discriminating means that allow the application of "a smaller spot diameter D by employing a larger one of said effective numerical apertures, with respect to one of said optical discs having a thinner one of said first layers." Therefore, the reissue claims are still narrower than the claims would be without any vestige of the argued limitations (see above), and the reissue claims provide a narrowing as compared with the claim subject matter that was surrendered in the area of the surrender

Accordingly, *Ex parte Eggert*, Appeal No. 2001-0790 (Bd. Pat. App. & Inter. May 29, 2003) aprecedential opinion of an expanded panel of the Board) **applies** to the present fact situation as to 96 and 98.

**A recapture rejection would not be appropriate in the present reissue application for claims 87, 89, and 100 in view of the following analysis**

The following limitations were argued with respect to patent claims 1, 7, 10, 13, 16, 19 to obtain allowance of the patent claims in the original application 07/740,629, for the patent 5,235,581:

Element X: control means selecting objective lens minimizing the aberration caused by the disc substrate.

Element Y: means for discriminating the thickness substrate (see page 9 of paper no. 6, filed 11/17/1992).

Element Z: the number of the optical heads or equivalent components N equal or greater than 2, and the identical number N of their respective similar components. This limitation is critical in defining over the prior art, and although specifically argued by Applicant (in the original application) only with regard to application claim 9 and patent claim 19, it is inherently implied in Applicant's response through the use of plural language for limitations such as "plurality of light emitting means", and "converging optical systems", i.e., the optical heads (see *loc. cit.*).

Art Unit: 2655

The above limitations have been modified via the reissue application in reissue claims 87, 89, and 100; for example, claim 87 as follows:

**Claim 87:**

An optical recording/reproducing apparatus for recording ... an information signal onto ... any one of N types (where  $N \geq 2$ ) of optical discs having first layers of different thicknesses ... comprising: ... a converging means having M different effective numerical apertures for converging said light flux on said second layer of ones of said N types of optical discs ... and performing aberration correction ... in correspondence with said first layers of said N types of optical discs loaded in said apparatus ...; wherein said converging means converges said light flux as a smaller spot diameter D by employing a larger one of said M effective numerical apertures, with respect to one of said optical discs having a thinner one of said first layers,

Although applicant has completely rephrased the limitations of the claimed invention, it is clear from the new claim language that the claimed apparatus has multiple converging components in form of "different effective numerical apertures" "performing aberration correction" and discriminating means that allow the application of "a smaller spot diameter D by employing a larger one of said effective numerical apertures, with respect to one of said optical discs having a thinner one of said first layers." Therefore, the reissue claims are still narrower than the claims would be without any vestige of the argued limitations (see above), and the reissue claims provide a narrowing as compared with the claim subject matter that was surrendered in the area of the surrender.

Accordingly, Ex *parte* Eggert, Appeal No. 2001-0790 (Bd. Pat. App. & Inter. May 29, 2003) *aprecedential* opinion of an expanded panel of the Board) **applies** to the present fact situation as to 87, 89, and 100

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

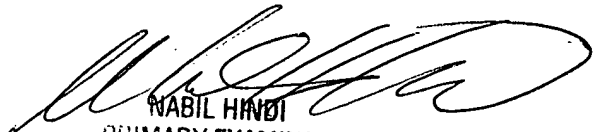
Any inquiry concerning this communication should be directed to NABIL Z HINDI at telephone number (703) 308-1555.

  
NABIL Z HINDI  
PRIMARY EXAMINER  
GROUP 2560  
2655

In response to the remand by the Board of Appeals dated September 16, 2003. The following action is taken:

The amendment to the specification dated August 25, 200 was not entered. The amendment does not comply with CFR 1.173 (b) where entire columns have been proposed for entry. In reissue applications, amendments are to be made via paragraph substitution. There are no provisions for column, page or entire specification substitution.

Any inquiry concerning this communication should be directed to NABIL Z. HINDI at telephone number (571) 272-7618.

  
NABIL HINDI  
PRIMARY EXAMINER  
GROUP 2500  
2056